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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,635	10/28/2003	Andreas Simon Schmitt	13913-159001 / 2003P00566	6420
32864 7590 04/09/2007 FISH & RICHARDSON, P.C. PO BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER INGBERG, TODD D	
			ART UNIT 2193	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/695,635

Applicant(s)

SCHMITT ET AL.

Examiner

Todd Ingberg

Art Unit

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 27-30 is/are pending in the application.
- 4a) Of the above claim(s) 23-26 and 31-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 27-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of Reference's Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1 – 22 and 27 - 30 have been examined.

Claims 1, 20, 27, 28 and 30 have been amended.

Claims 23 – 26 and 31 – 33 have been canceled.

Information Disclosure Statement

1. The Information Disclosure Statement filed July 21, 2006 has been considered.

References AA and AB are in German and has been considered to the extent the Examiner understands German.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 20-22 and 27 - 30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The current focus of the Patent Office in regard to statutory inventions under 35 U.S.C. § 101 for method claims and claims that recite a judicial exception (software) is that the claimed invention recite a practical application. Practical application can be provided by a physical transformation or a tangible result. No physical transformation is recited and additionally, the final result of the claim is optimization which is not a tangible result because the optimized results are not clearly claimed to be tangibly embodied on a computer readable medium. The following link on the World Wide Web is for the United States Patent And Trademark Office (USPTO) policy on 35 U.S.C. §101.

http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf

Under the current Office policy the result is the key. The Office is looking for the result of your invention in the program product and system claims to be tangibly embodied. This can be done by an action verb such as writing, storing, displaying etc to a computer readable medium.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 – 11 and 27 – 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mariani et al USPN#5,854,932 issued December 29, 1998 in view of James Martin June 1, 1992.

Claim 1

Mariani teaches a method comprising: providing a system including an interface (Col 1, lines 39 – 46) and multiple units of compiled code (Col 1, lines 39-52), the interface including global components (Col 13, scope, lines 25 – 45) and each unit depending on at least one of the global components included in the interface (combination if limitations above); dividing the interface into levels ((col 13, levels of dependency shape, lines 25 – 35), each level including one or more of the global components (Highest level must exist – at least one level), each global component being included in no more than one of the levels (Martin, page 269) generating multiple dependency lists (Col 15, lines 22-33, levels based on program structure of source – e.g. class structure); associating a unique one of the multiple dependency lists with each of the levels (wizard, col 15, lines 18 – 24); associating a unit with a dependency list based on the global components on which the unit depends (col 15, lines 33 – 43); and marking only those units associated with a particular dependency list for recompilation based on a change to a particular global component affecting those dependency lists with relationships to a level that includes the changed global component (col 15, lines 42 – 53). Mariani teaches many ways to reduce compilation including dead code elimination. But Mariani does not explicitly teach the canceling of inheritance which will terminate the inheritance of a class at that level down. It is Martin who teaches canceling inheritance (Martin, page 269, Canceling Inherited features). Therefore, it

Art Unit: 2193

would have been obvious to one of ordinary skill in the art at the time of invention to combine Mariani and Martin because canceling inheritance can be done "... - for the sake of performance." (Martin, page 269)

NOTE: the global class is Birds.

Claim 2

The method of claim 1 wherein the interface includes a definition unit (col 16, lines 30-34 – dependency information).

Claim 3

The method of claim 2 further comprising recompiling the unit automatically based on the marking (col 15, lines 18-34).

Claim 4

The method of claim 3 wherein recompiling the unit occurs at a subsequent usage. (col 15, lines 24 – 27).

Claim 5

The method of claim 4 wherein the subsequent usage is a next usage. As per claim 4.

Claim 6

The method of claim 1 wherein marking only those units associated with a particular dependency list for recompilation based on a change to a particular global component affecting those dependency lists with relationships to a level that includes the changed global component further comprises: determining if a particular property associated with the level has changed; and marking the unit for recompilation only if a particular property has changed (Col 16, lines 22 – 43).

Claim 7

The method of claim 1 wherein dividing the interface into levels further comprises assigning an arbitrary number of levels to the interface. (Figure 6A, arbitrary number related to arbitrary levels of dependency which is stored in Project database)

Claim 8

The method of claim 1 wherein dividing the interface into levels includes assigning a level based on a dependency on all levels of the interface. (Col 9, lines 36 – 37 – Project database).

Claim 9

The method of claim 8 further comprising recompiling a client assigned to the level based on a strong dependency on the whole interface after each change to the interface. (Col 16, lines 22 – 43).

Art Unit: 2193

Claim 10

The method of claim 1 wherein dividing the interface into levels further comprises assigning a level based on a dependency on an interface component. (Col 16, lines 22 – 43).

Claim 11

The method of claim 10 further comprising, recompiling a unit assigned to the level based on a dependency on an interface component after each change to the component. (Col 10, lines 46-59).

Claim 12

The method of claim 11 wherein the change to the component includes a name change. (Col 9, lines 39 – 57).

Claim 13

The method of claim 11 wherein the change to the component includes a deletion of a component. (Col 9 lines 65 to col 10, line 8).

Claim 14

The method of claim 11 wherein the change to the component includes a layout change. (Col 9 lines 65 to col 10, line 8).

Claim 15

The method of claim 1 wherein dividing the interface into levels includes assigning a level based on a reference to the interface. (As per claim 1).

Claim 16

The method of claim 15 wherein the client depends on the existence of the interface. (As per claim 1).

Claim 17

The method of claim 1 further comprising associating indirect clients with a level. (met by inherent top (first) level).

Claim 18

The method of claim 17 wherein the indirect clients are associated with a lower level than the units. (inherent relationship of calls as per claim 1 – part of interface).

Claim 19

The method of claim 1 wherein the dependency list is automatically managed by the system. (Col 9, lines 35 - 37).

Claim 20

A computer program product, tangibly embodied in a machine-readable storage device, for executing instructions on a processor, the computer program product being operable to cause

Art Unit: 2193

a machine to:

provide a system including an interface and multiple units of compiled code, the interface including global components and each unit depending on at least one of the global components included in the interface;

divide the interface into levels, each level including a set of one or more of the global components, each global component included in no more than one of the levels;

generate multiple dependency lists;

associate a unique one of the multiple dependency lists with each of the levels;

associate a unit with a dependency list based on the global components on which the unit depends; and

mark only those units associated with a particular dependency list for recompilation based on a change to a particular global component affecting those dependency lists with relationships to a level that includes the changed global component. As per claim 1.

Claim 21

The computer program product of claim 20 further comprising, instructions to cause a machine to recompile the client automatically based on the marking. As per claim 3.

Claim 22

The computer program product of claim 20 wherein the interface includes a definition unit. As per claim 2.

Claim 27

A system comprising: a primary system including an interface and multiple units of compiled code, the interface including global components and each unit depending on at least one of the global components in the interface;

a recompilation system including a processor and memory storing a computer program product that includes instructions operable to cause the processor to:

divide the interface into levels, each level including one or more of the global components, each global component being included in no more than one of the levels; generate multiple dependency lists; associate a unique one of the multiple dependency lists with each of the levels; associate a unit with a dependency list based on the global components on which the unit depends; and mark only those units associated with a particular dependency list for recompilation based on a change to a particular global component affecting those dependency lists with relationships to a level that includes the changed global component. As per claim 1.

Claim 28

The system of claim 27 in which the computer program product stored in the memory of the recompilation system, further includes instructions operable to cause the processor of the recompilation system to automatically recompile only those units that are marked.
As per claim 3.

Claim 29

The system of claim 27 wherein the interface includes a definition unit. As per claim 2.

Art Unit: 2193

Claim 30

The system of claim 27 in which the computer program product stored in the memory of the recompilation system further includes instructions operable to cause the processor of the recompilation system to: determine if a property associated with the level has changed and mark the unit for recompilation only if the property has changed.

As per claim 6.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Todd Ingberg whose telephone number is (571) 272-3723. The examiner can normally be reached on during the work week..

Art Unit: 2193

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'TI', with a stylized flourish extending from the end.

Todd Ingberg
Primary Examiner
Art Unit 2193

TI